

Why Should You Care?

When thinking of bats, the first images that come to many people include Halloween and vampires. Unfortunately because of certain holidays and horror movies, a lot of people have a negative attitude towards bats. They are thought of as dirty, harmful and frightening.



In reality, they are none of those things. Bats, just like any creature, are probably more scared of you than you are of them. All of Iowa's bats are insect eaters. Our bats save the agricultural industry millions of dollars a year with their insect-eating habits which help to reduce pests.

Besides helping with crop fertilization, bat guano is also essential to the cave ecosystem and its resulting food chain.

Bats provide valuable services to people and to the ecosystems in which they exist. Their loss would have cascading effects, such as increased crop pest populations, leading to increased damage to crops.

Science's Role

Several state and federal agencies are working together to discover the source, cause and cure of WNS in order to develop ways to manage the disease and stop its spread. The WNS investigation has three goals: research, mgmt/monitoring and outreach.

Want More Information?

For more articles on WNS and its effect in Iowa and the U.S., please visit the Iowa Department of Natural Resources Web site and search with the key word, "white-nose syndrome": **www.iowadnr.gov** or any of the following web sites:

U.S. Fish and Wildlife Service
www.fws.gov/whitenosesyndrome

USGS's National Wildlife Health Center
http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/

Want to learn more about bats and caves?
Please visit the following web sites:
Bat Conservation International:
www.batcon.org

Organization for Bat Conservation:
www.batconservation.org

National Speleological Society:
www.caves.org

This brochure was produced in partnership by:



IOWA STATE
UNIVERSITY
University Extension



Written by Rebecca Christoffel and Kelly Siebert
Design by Tania Kac/ Designarchy
© 2011 Iowa Department of Natural Resources

Stopping^{the} Spread^{of} White-Nose Syndrome (WNS) in Bats

Find out how you can join the fight against this fatal disease across North America to save our bats from extinction





What is **WNS**?

During the past several years, a newly discovered disease known as White-Nose Syndrome (WNS) has emerged and has affected several cave-dwelling bat species in the U.S.

A cold-loving fungus, *Geomyces destructans*, is believed to be the cause of WNS and of the recent high mortality rate among several species of hibernating bats.

White-Nose Syndrome was first documented in New York in the winter of 2006-2007. Since that time, > 1,000,000 bats have died from New York and the surrounding states and Canadian provinces, south to Tennessee. Most recently, the fungus has been found as far west as Missouri and Oklahoma.



For the most recent map of WNS' spread, go to: www.fws.gov/whitenosesyndrome

Although the exact cause of death is unknown, infected bats awaken frequently during hibernation and, exhaust their fat reserves without being able to replenish them, resulting in death.



Our **Risk**

Currently, the human health risk from WNS is unknown but appears to be low. To date, no human illnesses have been associated with contact or exposure to WNS-infected bats or caves.



What are the **Signs** of WNS?

- Increasing numbers of dead bats during the winter in caves and hibernacula
- Appearance of white fungus on the bat's ears, wings, tail and a white ring around the bat's nose
- Bats flying outside during the day in winter
- Bats clustered near the entrances of caves (U.S. Fish and Wildlife Service)



The **Spread** of WNS

Primarily, the pattern of disease transmission is believed to occur by fungal spores being passed through bat to bat contact. Such transmission has been demonstrated in the National Wildlife Health Center laboratory.

There is also the possibility of WNS being spread by humans unknowingly from cave to cave on their clothes and gear. Scientists have seen unexplainable jumps between WNS cases that are too far for a bat to have flown, resulting in this possible second mode of transmission. Because of this, many caves have been closed to humans to reduce the risk of spread of WNS.



Effects on **Iowa**

Although WNS has not yet been observed or documented in Iowa, bordering states have had confirmed cases of WNS-infected bats.

Currently, there are 9 confirmed bat species in North America that have been infected with the disease. Five of those 9 inhabit Iowa, including the Big Brown Bat, Northern Myotis, Tri-colored Bat, Little Brown Bat and the Indiana Bat.

How Can You **Help**?



- Keep up-to-date with the most recent news about WNS and cave closings and inform others of WNS and its effects.
- Report any findings of dead bats and bats that you suspect are infected with WNS to your state wildlife agency or Iowa DNR.
- Follow the IDNR's rules and regulations regarding caves and hibernacula such as cave closures.
- Avoid any caves with hibernating bats to minimize disturbance and the possible transmittance of the disease.



If going into a cave, avoid contact with bats and follow the US Fish & Wildlife Service's recommended decontamination protocols for clothes and equipment: www.fws.gov/whitenosesyndrome